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# #162

# ON AESTHETICS AND SPATIAL CONFIGURATION

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#### **ABSTRACT**

This article takes as its point of departure that any question concerning architecture, in a broad sense, has cultural and aesthetic implications, whether directly concerned with them or focused on social, technical, functional or other concerns. From such an outset, so does spatial configuration. However, while questions of aesthetics have been addressed within syntax research, it has rarely been the central point. This article intends to address more specifically the question of spatial configuration as *aesthetics*, on the one hand, and the *aesthetic implications* of configurational analysis on the other. In doing so, it will discuss aesthetic implications of ostensibly non-aesthetic considerations by addressing aesthetics as cultural, social and formal values embedded in and expressed through architectural works, and mediated through engaged and distracted experience. Concretely, the discussion will revolve around a small selection of works to develop a reasoning around aesthetics and configuration. This includes Alexander Klein's graphic methods to evaluate building plans and its relation to a selection of Mies van der Rohe's works, to conclude with a discussion relating the findings to *habits* and *dispositions*.

# **KEYWORDS**

aesthetics, architecture, morphology, configuration, movement aesthetics

# 1. INTRODUCTION

My intention in this article is, I believe, rather simple: starting from that architecture is, to a greater or lesser extent depending on definitions, an aesthetic practice, it is reasonable to consider the ways in which spatial configuration forms part of such a practice. Thus, I do not intend to say that all research into configuration should discuss aesthetics, nor that I will present a full theory on the subject. Rather, my position will be that there is need for a more thorough engagement with aesthetics, and that this engagement begins as best not with an attempt to 'prove' that configuration is aesthetics, nor to find empirical support through statistics or observations, but by a discussion that takes its point of departure in a postulation that configuration is an aesthetic question, and from such a position investigates how it is so and how we can build such a discourse. Such a discussion, I believe, is better engaged with through specifics, engaging with concepts and theories in syntax research but approached from another position.

To be clear 'aesthetics' in this discussion will not concern 'beauty', as do parts of aesthetic discourse (e.g. Pérez-Gómez, 2012; Shelley, 2011; John, 2012). Nor will it concern degrees of impact on sensory experience, or richer or poorer experiential qualities. Instead, I will approach aesthetics from two points of view: as a response to a question such as 'what is the aesthetics of this building' (including structuring and manipulation of experiential qualities), and as experience produced through the interplay between a 'work' and an experiencing audience considered as cultural beings (and thereby conditioned by earlier experiences and expectations; Kaye, 2000).



An important point of origin is how Walter Benjamin discusses aesthetic experience in *The Work of Art in the Age of Mechanical Reproduction* (2008), differentiating two forms of aesthetic experience: that of the art world characterised by the *active engagement of the experiencing subject*, and that of the everyday life of the masses, characterised by a *distracted experience in the everyday*. In a sense, the former can be compared to a common use of Kantian aesthetics (Kant, 1974), and the latter can be linked to pragmatist and everyday aesthetics (Dewey, 1934; Mandoki, 2007). Furthermore, Andrew Ballantyne's (2011) discussion of the role of *habit* in what Benjamin describes as that the masses 'absorb' culture in distracted experiences will be important; i.e. subconscious or unconscious internalisation of values and ideals<sup>1</sup>.

Herein lies the core of the proposition of this paper: configurational analysis needs to increase its sensitivity to modes of perception and experience of the environment embedded in the habits of everyday life, and, conversely, that architectural configuration contributes to such embedding in addition to conscious experiential quality or particular effects on use and behaviour. However, the proposition is also that such reflection nuances and develops modes of interpretation of spatial configurations as well as design reasoning. Hereby, it also has implications for how we read and interpret architecture, and what proposals and propositions it makes (Peponis, 2005).

Finally, the position is that giving shape to space and buildings, for whichever ostensible or explicit purpose, on whichever grounds, and following whichever principles, is an aesthetic activity<sup>2</sup>. Here, this is taken in the sense that it by necessity involves deciding priority, choosing preference, and executing judgement over what is given shape and how—but also, how this is arranged and configured, what is hidden, and what is neglected (Foucault, 1986; Koch, 2010). I wish to clarify that with *aesthetics* I mean neither general art theory nor something analogous to 'generative theory' in Hillier's (1996) terms. My position is instead similar to that of Boris Groys in *Going Public* (2010), considering the philosophy of art as consisting of *aesthetsis*, *poesis* and *techne*: experience and evaluation, creativity and exploration, and methods and techniques<sup>3</sup>. However, as is clear in Groys' reasoning, these are aspects of an integrated whole: while I will focus on 'aesthesis', this includes evaluation and consideration in the creative process as well as the imagining coming audiences (e.g. Malm and Wik, 2012). In this sense, I agree with Sophia Psarra (2014) regarding the integrated character of 'generative' and 'analytic' theory: while *aesthesis* is concerned with 'consumption' and 'experience', this does not suggest it is confined strictly to consumers.

# 2. CONFIGURATIONAL EXPLORATIONS

A key starting point for the coming discussion is architecture as a means by which we "create relatively complex and permanent arrangements of space which function as stable allocentric frameworks for locating ourselves, other people, and things as we go about our daily lives" (Peponis, 2012, p. 12), and these frameworks as manipulations of material boundaries for the purpose of differentiation and arrangement of space as both an enabling practice and an exercise of power. These manipulations allow to fold space and generate distance where there is little—such as in a labyrinth (Figure 1)—and differences to co-exist in close Euclidian proximity—such as a bedroom next to a busy street.

- 1 I acknowledge that the work in this article is concerned with form, which is not self-evident in contemporary aesthetic discourse (e.g. Frichot, 2015; Avanessian and Skrebowski, 2011). This is not intended to position aesthetics as about form further than as *also* concerning form, but there are important conceptual, theoretical, artistic, and political aesthetical issues that takes other forms than 'form' (see e.g. Rendell, 2006, p.147-152; Erharter, Schwärzler, Sircar & Scheirl, 2015; further Tschumi, 1994, 2000, 2005; Kwinter, 2001).
- 2 Vidler (1992) comments, in a reflection on Hegel's (1975) writings, how "[t]he very act of impressing meaning on meaningless material, the fact that, however embedded in form, this meaning will remain always external to the material, gives a particular instability to the artistic process." (p. 123)
- 3 In Hillier's (1996) terms, arguably, aesthetics rests more comfortably in 'analytic' theory, but the triad as discussed by Groys holds a more integrated relation, and arguably also points to a missing piece in syntax reasoning in techne.





Figure 1 - A labyrinth can be considered as a folding or even extension of space. Geometrically, the principle of the labyrinth is, within the confines of its overall shape, to fold the pathway to the centre so as to make the walking length as long as possible. The labyrinth performs an extreme of how architecture transforms spatial proximities by the arrangement of boundaries and connections. Here represented on a silver Drachma from Knossos, 300-270BC, (19mm, 5.41 q). Head of Hera left, wearing ornamented stephanos, triple-pendant earring, and necklace / Labyrinth; A-P flanking,  $KN\Omega\Sigma I(\Omega N)$  "of Knossians" below. Photo: Classical Numastic Group (CNG), Public Domain.

A recognisable example of the former is the way IKEA has a visitor meander long distances created inside a box before reaching the goods for sale (e.g. Penn, 2005), whereas the latter is perhaps as most clearly demonstrated in a Lars von Trier's Dogville (2003), where 'walls' are simply drawn in white chalk on the floor while enacted as if real—juxtaposing at times radically different events taking place just next to one another yet as-if in different 'worlds'. While the juxtapositions of events in Dogville are rather used for drama and provocation (e.g. Laine, 2006, p.132; Sinnerbrink, 2007), it forces the viewer to face how boundaries allow close proximity of contrasting or even contradictory acts. Such allowance is further theorised by Marcus (2010), proposing the term spatial capacity as a means to make discursive the on-the-surface simple decisions of the number and size of units a building or a city is subdivided into. I will, however, focus primarily on the former, while recognising how as Bafna (1999) points out, this is interdependent with the latter.

I will begin to concretely engage with 'aesthetics and configuration' by examining select examples from Western European modernism—partially because, as Hanson (1998) notes, modernism marked a point where considerations of configurational character became more explicit in architectural thinking at large. This can, for now, be attributed to two parallel processes: the emergence of the concept of space as something else than 'void', and manipulable 'as such' (Forty, 2000), and the emergence of the bubble diagram and similar diagrammatic operations bringing the organisation of elements into focus in particular ways that allowed for certain forms of manipulation (Macarthur and Moulis, 2005; Emmons, 2006).

A particularly explicit example is the work of Alexander Klein. Working for the German government to develop 'scientific' norms and principles for architecture and housing (Bevilacqua, 2011), Klein developed three principles for good architectural solutions (Klein, 1927, p. 296):

- 1) The arrangement of movement routes and course of the walk lines (arguing that a simpler walking line is preferable to a more complex one, measured in number of turns, to minimize physical effort).
- 2) The concentration of movement areas (arguing that a more concentrated movement area is preferable over more fragmented solutions, in regards to comfort, well-being and spaciousness).
- 3) The geometric correspondence and relations of the plan elements (arguing that elements forming a graspable whole are better than a more complex and/or subdivided plan, in ensuring a coherent overall impression or perception of parts of the building).



These principles were demonstrated by examples comparing Klein's own schematics to existing cases (Figure 2). On closer study of both the figures and Klein's further writings, it more clearly becomes a question of (reducing) route complexity, (increasing) concentration of spaces, and (reducing and normalising) number of spatial elements (see also Klein, 1934, p. 99-124; Kellermüller, 1928; Bauer, 1934). Interestingly, the concepts presented by Klein hold similarities to syntactic concepts, even if they also clearly are different in, first, being normatively formulated, and second, less theoretically and methodologically robust. Thus, the way in which Klein analyses 'number of turns' lies close to how syntactic properties are discussed by for instance Peponis (2012), but Klein is concerned with norms and recommendations whereas Peponis is concerned with cognitive aspects of architectural configuration. Klein's argument forms an aesthetic of efficiency and rationality that takes several forms including number of turns.

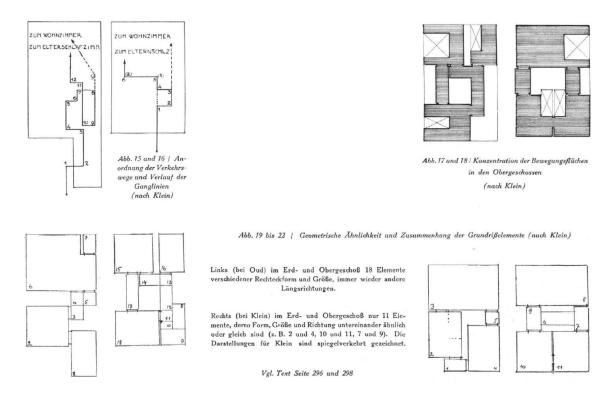


Figure 2 - The three principles of Alexander Klein's 'graphical analysis' approach illustrated by his own drawings in Wasmuths Monatshefte für Baukunst und Städtebau (Klein, 1927, p. 296-298). Here, arguably, the distribution of space is put centre-stage studied under principles of efficiency and utility. (Illustrations under public domain, made available by Zentral- und Landesbibliothek Berlin).

With some liberty taken in the parallel, one can find related aspects in the work of Mies van der Rohe, in the Brick Country House (1924), the Berlin Exhibition house (1929), and the Farnsworth House (1951) (Figure 3; see also Tegethoff, 1985). In these works, manipulation of movement routes and concentrations of use areas is clearly present, from the extreme 'opposite' in the Brick Country House maximising number of turns, via the Berlin Exhibition house, towards the extreme simplicity of the Farnsworth House<sup>4</sup>.

4 As can be seen in the article in *Der Baumeister* (1931) on the 1929 Berlin Exhibition titled 'Die Neue Linie', Mies did not work on these princples alone. However, as Bafna (2006) notes, there is little evidence that Mies was explicitly concerned with redefining spatial organisation in the early 1920s, and the Brick Country House holds a range of other symbolic and pragmatic properties that complicates such a notion. Furthermore, while Luciana Colombo (2015) notes that Mies was close friends with Hugo Häring and Ludwig Hilbersheimer working at the German State Research Institute on the economics of the single-storey house, there is not conclusive evidence of any actual link between the two.



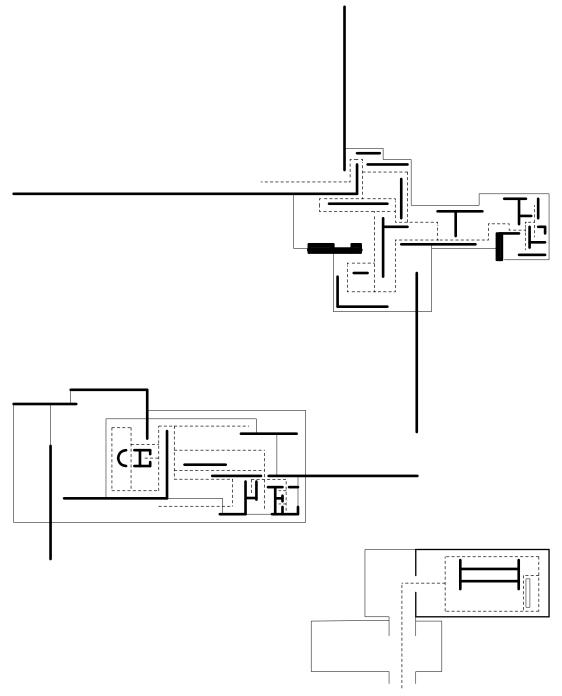


Figure 3 - Mies van Der Rohe's plans of Brick Country House (1924), Berlin Exhibition House (1929), and Farnsworth House (1951). Schematic plans with a drafted 'Klein graphic analysis number of turns line' as a dashed line by the Author.

However, this comes with a series of caveats. I do not mean to claim that Mies is deliberately commenting Klein's writings—the point is rather the engagement with specific issues of spatial differentiation, subdivision and arrangement present in architectural proposals in written and built forms. The transition from the early works with free-flowing space and the 'post 1929' free flowing plans in Mies' production noted by Bafna (2006) will for now be set aside for the purpose of focusing on the particular effect in the Brick Country house to appear, in a sense, labyrinthine, even if this *labyrinthine* character at first appear more prominent when looking at the plan as a movement choreography taking into account the geometry of connections



and boundaries than if analysing it as a convex space arrangement in a justified graph<sup>5</sup>. This extension of movement choreography can be further traced in for instance the Hubbe house and the Berlin Exhibition house, but subsequently seems to disappear (compare Figure 4).

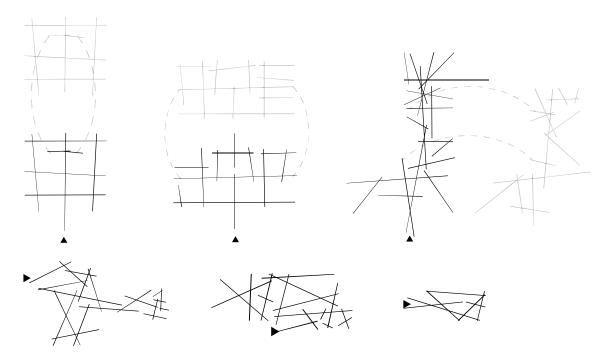


Figure 4 - Axial diagrams of three main examples from Robin Evan's Figures, Doors and Passeges (1978) and the three Mies' villas initially introduced in this article as axial lines. Coleshill is also discussed by Hanson (1998), and the Mies villas are discussed by Bafna (1999). Counting from the main entrance (shown by an arrow), the minimum depth to the deepest space including the entry line is, from top left with 2<sup>nd</sup> floor included in parenthesis: Palazzo Antonini 3 (5), Coleshill 5 (6), Red House 5 (6), Brick Country House 11, Berlin Exhibition House 7, Farnsworth House 3. If the other main entry to the Coleshill House is considered, the depth increases by one. An overview of the architectural magazine Der Baumeister from the years around the Berlin Exhibition (e.g. 1929, 1931b) and Klein's own Das Einfamlienhaus: Südtyp (1934) indicates a regular depth of published free standing houses in the concurrent period in Germany to be somewhere around four to five steps.

The labyrinth as figure is here interesting as it is the least apparently 'functional' of the examples, and in its contrast to Klein's principles. I say this without stating the purpose or the perception of the labyrinth in ancient Knossos or throughout history but rather in relation to concurrent architectural thinking. Aesthetically the process of moving into the centre and the experience both visual and embodied (e.g. Shustermann, 1992; Dahlin, 2002; Carrol and Seeley, 2013) along the way can be understood as important, but this understanding is also limited: when Hui Zou (2012) analyses the idea of the labyrinth (Migong) in Chinese building tradition, other characteristics are brought forth. In particular the sense of remoteness, utilised by the Emperor to separate himself from the public and appear as mystic. Zou links the concept further:

"The mystic depth of human dwelling can be explained with the ancient concept ao, which, according to the architectural treatise Yingzao fashi (The Principles and Patterns of Building; 1103), means "remoteness," and its semantic root is related to the space for sleeping. In the ancient dictionary Erya (ca. third century bce/to first century), the ao is explained as the south-western corner of a bedroom, which marks the remotest spot of a domestic interior. In *Shiming* the  $\alpha o$  is described as a residential room wherein remoteness can be perfectly contained." (p. 81)

5 It is of course not a coincidence that the Labyrinth and the Brick Country House are featured on the front page of Psarra's Architecture and Narrative: The formation of space and cultural meaning (2009), as well as an introductory figure to the conclusions. Justified Graph: See Hillier and Hanson (1984).



Remoteness is the condition for a place where the mind and body can rest, and it is in *remoteness* one can be as most oneself and in harmony with the world. As Zou continues to show, deep and remote spaces as present in a wide range of Chinese architectural motifs, from graves to imperial gardens to housing. Remoteness, here, is different from a generic 'privacy' through a material boundary as in a regular, contemporary 'western' apartment in its procedural qualities of distance and folding, and the notion stands in direct contrast to how Anthony Vidler discusses relations between the labyrinth and the *unhomely* (and uncanny) in De Quincey and Piranesi (1992, p.37). What Zou points to, is that while 'remoteness' could be argued for in functional terms in structuring relations between 'private' and 'public', there are additional aesthetic qualities in remoteness that are considerably different from that of separation.

While not claiming that Mies Brick Country House *is* a labyrinth, it is possible to draw parallels to how experience is structured and what kind of experiential, functional, and habitual qualities are embedded in the building considered as a place to live in. From this point of view the Brick Country House and the Farnsworth House are polar opposites—while the former extends, folds and makes distant, the latter minimises, compresses and integrates—but both clearly play with how geometry and space interplay with lived architecture. If the Brick Country House is investigating how to architecturally provide spaces like in a regular *Landhaus* without the use of doors, the Farnsworth House is an investigation of minimizing walls<sup>6</sup>. Here, one can relate to Hillier's investigation in 'Is architecture an ars combinatoria' in *Space is the Machine* (1996, p.275-334): the Farnsworth solution is analogous to an operation where as little wall as possible has as large differential effects as possible.

### 3. NARRATIVES OF MOVEMENT AND VISION: TOWARD HABITS AND DISPOSITIONS

It bears repeating that I do not intend here to suggest that Mies villas can be understood simply as configurative investigations; geometry, material, views and vistas (compare to Klein, 1934, p.98-105), reflections, construction units, free-flowing space, and a range of other questions must be considered, including what kind of family (real or imagined) Mies was designing for. These qualities, however, are partially linked to the configurational properties of Mies' architecture. For instance, Shophia Psarra (2009) shows how the Barcelona Pavilion stages views and makes use of reflections in a manner that is interlinked with how space is configured by walls and objects. Psarra offers a more directly comparable example in her analysis of the difference between the Acropolis and the Parthenon, where the former early on offers views of the 'complete story', and the latter is predominantly experienced sequentially via partial views continuously evolving as one moves through the complex:

"Thus, the entrance to the profane part of the acropolis was 'symmetrical' with the entrance to one of its temples. In contrast, the Parthenon entrances were hidden and could be accessed through a set of intervening spaces and changes in direction. Visitors would also assimilate a larger narrative consisting of the two buildings and their relative position in the precinct." (p. 29)

In some aspects, the labyrinth is the extreme figure for the latter experience: the sequenced, partial, folded, and extended, holding clear narrative qualities as well as quite distinct from the overview (see Tschumi, 1996). But it also points to an important *difference* between the Knossian labyrinth and Mies' Brick Country House: while one folds space into a spiral, the other folds space so as to provide a series of views and vistas, breaking up the material boundary to let vision flow free to the exterior—even if it only in minor parts of the building offers views between locations inside the building itself.

- 6 One might speculate that one reason for the comparatively complex spatial structure of the Brick Country house is precisely the conflict of solving a traditional *Landhaus* plan, the influence of Hendrik Petrus Berlage, Frank Lloyd Wright and the *De Stijl* movement (e.g. Colquhoun, 2002; Bafna, 2006), a concept of free-flowing space, and walls and openings as separate entities.
- 7 Tschumi comments: "The nature of the labyrinth is such that it entertains dreams that include the dream of the pyramid." (1996, p.49) One point in this quote is the relation between complexity and overview, or, being lost and seeking a map. It is also a comment of the inadequacy of such overviews and maps in being unable to grasp the full complexity of the labyrinth.



This points to another question I will address before moving towards conclusion, one that can be further emphasised by how Peponis and Bellal (2010) in their analysis of Fallingwater show that Frank Lloyd Wright's building has at least three centralities, depending on whether on focuses on movement or vision, and whether one includes the terraces or not. This depends on the complex relations between visibility and permeability, which at times take on contradictory properties, such as that one is *closest* to everything in the centre of a square, but has *best overview* from one of its corners (Hillier, 2003). The reason to address this, is how they form interrelated parts of architectural experience, and a discussion on configuration and aesthetics is by necessity must recognise the challenge this poses, and the architectural qualities it entails. Qualitatively, we can understand such differences as disjunctions (Tschumi, 1996) generating complex sets of configurational relations.

Psarra (2009) develops this regarding not only the Barcelona Pavillion, but also sir John Soane's museum structuring reoccurring views of artworks throughout the building. She demonstrates how in both cases, there are important effects of this interplay that are central to how they construct narratives and how they create relations to both the building and one's own role in it, as well as how one is to relate to the sculptures. Borrowing an analysis from earlier work (Koch, 2012) and adding a three-dimensional illustration, the effects can be illustrated in how a serial configuration of permeability relates to on the one hand adjacency, and on the other hand, as potential disjunctions of visibility and permeability when being folded around a courtyard in a two storey-building (Figure 5).

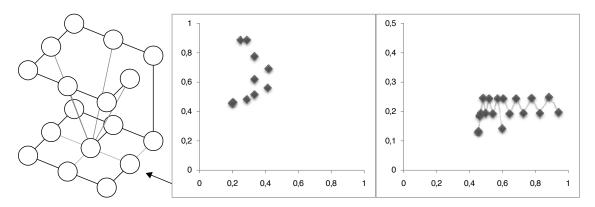


Figure 5 - Analysis of disjunctions of relative asymmetry in an 'ideal' configuration of an atrium building with a 'labyrinth' configuration. Left: The configuration analysed where a black line represents movement access and a grey line visibility access. Middle: Between adjacency (x) and permeability (y). Right: Between permeability (x) and visibility (y). Scattergrams from Koch (2012).

Structuring of such relations sets conditions for how relations between inhabitants, between inhabitants and visitors, and between inhabitants and an exterior public is both conditioned and communicated as I have earlier closely examined in the Adolf Loos' house for Josephine Baker (Koch, 2013a), and de Holanda (2009) has investigated in Oscar Niemeyer's architecture. In Loos' proposal, one finds a quite particular and different set of social relations embedded in the building, which challenge notions of privacy, exposure and control, and which repeatedly invites speculation by a continuous play of hiding and exposing. These disjunctions and how they are treated form particular aesthetic qualities embedded in architecture which unfold through dynamics of visits as well as over time in continuous inhabitation, and—if we follow Benjamin's argument—are appropriated in distracted experience and *internalised*, forming habitual relations and understanding of the world and one's relations in it and to it, in addition to how it structures habits and behaviours.

A perhaps more straight-forward approach can be found in Evans (1978) discussion on planideal relations as materialised family relations and notions of privacy in the Italian Renaissance villa—in particular Andrea Palladio's *Palazzo Antonini* in Udine—and the 19th century English

house—in particular Philip Webb's the *Red House* in Bexleyheath, London. He demonstrates how they express distinctly different positions regarding individual privacy, household composition, and the spatial frameworks for enactment of social relations that constitute the households: whereas the Italian Villa has *no* rooms with only one entrance, *most* rooms in the Red House have only one entry—necessitating the use of corridors and passages. In this configurational difference, they represent different *ideals* of life, of family, household, and a range of other things. The particular aesthetic qualities of the Brick Country House or the Baker House, however, are only possible to achieve by the combination of specific foldings of permeability space in relation to specific, interrelated opening and closing of visibility conditions, that stages the arrangement and interrelations of the vistas it provides.

#### 3. HABITS OF INHABITATION

So, if we consider the labyrinth here to, first, be an elaboration of cultural and experiential significance and purposes, which has both traditional and deliberate roots, we can see the labyrinth as an aesthetics of certain intentions and effects realised through architectural configuration made concrete through a geometry of folding. Second, we see the labyrinth from the point of view of *habit*, as discussed by Ballantyne (2011), in that it builds both habitual relations to that which the labyrinth holds, the presence and significance of labyrinths as such, and as producing the habitual understanding of a visit to such a place to consist of walking through a labyrinth. In Benjamin's terms, the labyrinth becomes *absorbed* into our understanding of a place, and into a broader understanding of architecture and society.

If we return to the complex relation between a Kantian and pragmatist aesthetics, particularly from the point of view where Kant argues that the purpose of aesthetics is to *train the way we look at the world*, additional questions rise. Acknowledging that this is a somewhat unorthodox link made—Kant speaks specifically of the engaged experience with art—it allows to consider the absorbed aesthetics [of the labyrinth] into individuals and culture, or the transmission of cultural norms via architectural configuration as discussed by Hanson (1998) or Markus (1993), to not only be a communication of norms and values, but as a fostering of a way to view the world, and consequently, ways to view the world *instead of other ways to view the world*.

Zou's example of the Chinese garden as operating through remoteness qua the labyrinthine is perhaps particularly clarifying in such a view. Relating to gardens, nature, individual and collective, this is another view of what a garden or nature *is* than in the open fields of many public parks, that is 'habitised' through the specific aesthetic arrangement and manipulation of the garden space. A comparison can be made to Japanese gardens, or perhaps more concretely the temples and paths between them around the valley of Kyoto, or to certain notions of medieval or self-organised streets (Johnson, 2013; Ingraham, 1998).

#### 4. SYNTACTIC AESTHETICS

Analysis developing similar lines of reasoning is definitely present in syntactic discourse also outside of the aforementioned works by Hanson and Markus. However, with some notable exceptions this tends to be remarkably limited to museums (e.g. Bafna, 2012, 2013; Peponis, 1993; Peponis et al., 2015; Psarra, 2010, 2014). One reason for this could be that whichever way one may look at it, it can hardly be disputed that one of the central purposes of art museums is to curate aesthetic experiences, but as Tzortzi (2011), Psarra (2009) and Zamani and Peponis (2005) and others have demonstrated clearly the configurations of museums and artworks within them participate in a range of processes that defines not only specific pieces of art, but their contextual belonging to categories, how categories are arranged and interrelated, their fleeting or well defined boundaries—or as Wöllfflin (1950) puts it: linear or painterly—and how experience and interpretation depends on the configurational setting<sup>8</sup>. Tzortzi and Hillier (2016) provides a particularly interesting example in their analysis of museums of performing

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<sup>8</sup> This links clearly to both artistic practices such as by Asher, Wilson and Haacke, and to other research into curatorial practices and museum architecture as discussed by Bourdieu and Darbel (1991), Bennet (1995), von Hantelman (2011), Kaye (2000), and Buskirk (2003), to name a few.



arts. Their argument, in the very brief summary that can be brought in here, is that certain performative experiences can be alluded to or reminded of through certain configurational characters of the museum layout that would not emerge in other configurations—in particular, the effects of 'ab'-space pairs (Hillier & Hanson, 1984) to stage the approach and engagement with the exhibited material in particular ways via particular narratives.

Through these works, it becomes clear how notions of aesthetics guide both the design of museums, and recursively, the notions of aesthetic experience and in the extension, notions of art. That is, art museums offer concrete examples of several layers of aesthetics that form an integrated discourse on aesthetics, art, and exhibition through one another, and it becomes clear how spatial configuration participates concretely and directly in this negotiation and discussion. However, an extension of the concepts developed in this research into a wider discourse on architecture seems not only to hold potential, but to be necessary. This said, these studies offer key insights into a closer understanding of the relation between architecture, engaged and distracted experience, habits, and dispositions towards 'the world'.

If we then return to Evans discussion on the pre-modern and modern architecture. If Evans is correct in his claims that there are shifts in the principles by which architecture is considered from geometrical symmetries and proportion to functional considerations and use-adaption, this would suggest altered aesthetic dispositions not only by architects, but by inhabitants, users (another term non-existent in pre-modern architecture), and a wider societal culture. That is, a shift in aesthetics to express 'use' or 'function' may, whether successful or not, begin a process where the absorbed notion of architecture is one of 'use value' or 'facilitation of function'9. With such a disposition even if we can speak about the labyrinth as fulfilling a certain experiential function, it is an alien figure that goes against the way habit and disposition conditions views of the world, the material environment, and architecture. Instead, we expect that architecture facilitates certain functional processes which we through habit and absorption have come to consider as ways in which architecture should operate. Considering how complex, contradictory, and changing the 'social' world is, and how architecture (as any artefact) is inadequate to provide absolute solutions to them, or even solutions where all the different habits, practices, relations and activities are given equal possibility (Markus, 1993; Koch, 2013b), this points to additional complexities. As a quite pragmatic but clear example, one can turn to how Krippendorff (2006) discusses such an ostensibly simple artefact as a milk crate:

"Milk crates are intended to transport milk to grocery stores, but designers can hardly prevent unintended uses: as bookshelves, playthings for children, bins to store tools, dividing walls, stepladders, or bicycle baskets. For a homeless person, a milk crate can hold priceless possessions. Tied to a pole with its bottom removed, it is a basketball basket. In the hands of an angry person, it can become a weapon." (p. 108)

Peponis (1989) discusses functionalist apartments in a similar vein in 'Space, culture and urban design in late modernism and after' in *Ekistics 56*, noting how they have come to be used by the inhabitants in quite reasonable but often radically different ways than the prescribed intention of the architects. Whether this is a failure or not comes down to the extent to which we expect, in the simplest sense, a milk crate to be used to carry milk in it. Rather than predicting or determining certain modes or ways of use, thus, one can argue that a legacy of modernism is the understanding that architecture should be evaluated based on the extent to which its subsequent use conforms to design intentions. Be that as it may, the argument here considers shifts in aesthetics understood as dispositions (views of the world), as engendered through both 'distracted' and 'engaged' experience, in part fostered by architectural solutions but with a limited capacity to determine it (e.g. Markus, 1993; Tschumi, 1996; Kaye, 2010). I here deviate from Ballantyne's discussion in the particular sense that he makes closer ties between architecture responding to habits and 'good' architecture, whereas I am more concerned

9 Wigley (1995), Hillier and Hanson (1984) and Scott (1998) all point to the importance to understand modernism not as *solving* function but as *an aesthetics of function*, which while not central to the discussion of aesthetics and configuration specifically, links to notions of relations between habits, dispositions, and understandings of architecture.

with recognising them as modes to understand other architectures and consider alternate possibilities. Through the above discussion, arguably, the presence of such relations between such dispositions and architectural configuration are clear.

## 5. CONCLUDING WORDS: CONFIGURATION AND AESTHETICS

This article has intended to discuss ways in which architectural configuration, or spatial configuration, can be understood as aesthetics, addressing the two sides of syntax theory outlined in The Social Logic of Space—the way material boundaries are manipulated to differentiate, define, and link space, and how social norms, structures, habits and practices can be linked to it. The reason, as stated in the introduction, is that amongst many other things, architecture is an aesthetic discipline, and architecture is experienced also aesthetically (in whatever way one defines it). In line with the general thrust of syntax research, focus has been put on 'aesthetics of the everyday' rather than the more engaged form of aesthetics of for instance a museum visit, as Benjamin differentiates it. This is not meant to say that studies of architectural configuration cannot contribute to the latter, but arguably this side of aesthetics is more consciously engaged with in the field as in for instance the works of Baffna, Peponis, Psarra, Tzortzi, and Zamani. Such an engagement with configuration, and the society-space relation, opens up for other interpretations of findings as well as, arguably, lines of reasoning pivotal for a closer engagement with both architectural theory and practice. It highlights potential aesthetic positions embedded in ways of interpreting and approaching configurational analysis. Important for this reflection is that in architecture, a 'non-aesthetic' position is not possible, especially not in the way discussed in this article—and even if such a position was attempted, it has direct purchase on aesthetic results that need to be recognised and further discussed.

It is not a suggestion that space syntax can solve aesthetics or should become an aesthetic field as a whole. Rather, the above shows how an approach to architectural configuration from the point of view of aesthetics allows for a range of critical discussions to be held, and that in understanding architecture aesthetics, configuration is one aspect where syntactic analysis could contribute. While, as Hanson notes there are clear notions of configurational play in modernism in that the play between permeability and visibility becomes an important aspect, other periods and aesthetics hold other principles, such as demonstrated by for instance Evans. Sometimes configurational reasoning is explicit, as in the works of Alexander Klein, with remarkable similarities to syntax theory with some key differences including its normative approach; norms in clear contrast with Zou's discussion of remoteness. In this sense, however, it is arquably possible to discuss configurational aesthetics of periods as well as individual works, architects and offices. As Psarra (2009) does regarding Robert Soane's museum, as Koch (2013a) does regarding Adolf Loos' house for Josephine Baker, as Bafna does regarding the Seattle Public Library (2013), as Peponis et al. (2015) do regarding conceptual shifts in design, as Tzrotzi (2011) does regarding museum curation, as Aragüez and Psarra does regarding SAANA (2015), or as Stavroulaki and Pepoinis (2003) discuss the narrative of statues in Castelvecchio.

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#### **REFERENCES**

- Aragüez, M. and Psarra, S. (2015), 'Spatial and social patterns of an urban interior: The Architecture of SAANA'. In: Karimi, K., Vaughan, L., Sailer, K., Palaiologou, G. and Bolton, T. (eds.), *Proceedings of the 10th International Space Syntax Symposium*, London: UCL, p.13:1-21.
- Avanessian, A. and Skrebovski, L. (eds.) (2011), Aesthetics and contemporary art, Berlin: Sternberg Press
- Bafna, S. (1999), 'The Morphology of Open Plan Residential Designs'. In: Major, M. D. and Amorim, L. (eds.),
  Proceedings of the Second International Space Syntax Symposium, Brazilia: Universidade de Brasilia, p.22.1-18
- Bafna, S. (2006), 'Symbolic content in the emergence of the Miesian free-plan'. In *The Journal of Architecture*, Vol. 10(2), p.181-200.
- Bafna, S. (2012), 'The Imaginative Function of Architecture: a clarification of some conceptual issues'. In: Greene, M., Reyes, J. and Castro, A. (eds.), *Proceedings of the Eighth International Space Syntax Symposium*, Santiago de Chile: PUC, p.8117.1-19
- Bafna, S. (2013), 'Attention and Imaginative Engagement in Marcel Breuer's Public Library'. In: Bhatt, R. (ed.), Rethinking Aesthetics: The role of body in design, New York: Routledge, p.51-84.
- Ballantyne, A. (2011), 'Architecture, Life, and Habit'. In The Journal of Aesthetics and Art Criticism, Vol. 69(1), p.43-49.
- Bauer, C. (1934), Modern Housing, Cambridge: Riverside Press
- Baumeister (1928), Der Baumeister XXVI Jahrgang Heft 7, München: Georg D. W. Callwey.
- Baumeister (1931a), 'Die "Neue Linie" im alleinstehenden einfamilienhaus'. In: *Der Baumeister Neuundzwan- zigster Jahrgang Heft 11*, München: Georg D. W. Callwey, p.422-431.
- Baumeister (1931b), *Der Baumeister Neuundzwanzigster Jahrgang Heft 11*, München: Georg D. W. Callwey.
- Benjamin, W. (2008 [1936]), The Work of Art in the Age of Mechanical Reproduction (transl. by Underwood, J. A.), London: Penguin.
- Bennett, T. (1995), The Birth of the Museum, London: Routledge.
- Bevilacqua, M. G. (2011), 'Alexander Klein and the Existenzminimum: A 'Scientific' Approach to Design Technique'. In *Nexus Network Journal*, Vol. 13(2), p.297-313.
- Bourdieu, P. and Darbel, A. (1991 [1969]), *The Love of Art: European Art Museums and their Public* (transl. by Beattie, C. and Merriman, N.), Cambridge, UK: Polity Press.
- Buskirk, M. (2003), The Contingent Object of Contemporary Art, Cambridge, MA: MIT Press.
- Dahlin, Å. (2002), On Architecture, Aesthetic Experience and the Embodied Mind: Seven Essays, Stockholm: KTH.
- Dewey, J. (1934), Art as experience, New York: Minton, Balch & Company.
- Carrol, N. and Seeley, W. (2013), 'Kinesthetic Understanding and Appreciation in Dance'. In *The Journal of Aesthetics* and Art Criticism, Vol. 71(2), 177-186.
- Colguhoun, A. (2002), Modern architecture, Oxford: Oxford University Press.
- Colombo, L. (2015), 'Ludwig Mies van der Rohe's idea of a modern courtyard house is explored considering its context stimuli, development, and practical applications'. In *Architectural Research Quarterly*, Vol. 19(2), p.123-132.
- Emmons, P. (2006), 'Embodying networks: Bubble dia- grams and the image of modern organicism'. In *The Journal of Architecture*, Vol. 11 (4), p.441-461.
- Erharter, C., Schwärzler, D., Sircar, R. and Sheirl, H. (eds.) (2015), *Pink Labor on Golden Streets: Queer art practices*, Berlin: Sternberg Press.
- Evans, R. (1978), 'Figures, Doors and Passages'. In Architectural Design, Vol. 48, p.267-278.
- Foucault, M. (1986 [1984]), 'Of Other Spaces: Utopias and heterotopias' (transl. by Lotus). In Lotus, Vol. 48/9, 9-17.
- Groys, B. (2010), Going Public, Berlin: Sternberg Press.
- Hanson, J. (1998), Decoding Homes and Houses, Cambridge, UK: Cambridge University Press.
- von Hantelmann, D. (2011), 'The rise of the exhibition and the exhibition as art'. In: Avanessian, A. and Skrebovski, L. (eds.), Aesthetics and contemporary art, Berlin: Sternberg Press, p. 177-192.



- Hegel, G. W. F. (1975), Aesthetics. Lectures on Fine Art (transl. by Knox, T. M.), Oxford: Clarendon Press.
- Hillier, B. (1996). Space is the Machine: A Configurational Theory of Architecture. Cambridge, MA: Cambridge University Press.
- Hillier, B. (2003), 'The architectures of seeing and going: Or, are cities shaped by bodies or minds? And is there a syntax of spatial cognition?'. In: Hanson, J. (ed.) *Proceedings to the 4th International Space Syntax Symposium*, London, Space Syntax Laboratory, p.6.1-6.34.
- Hillier, B. and Hanson, J. (1984), The Social Logic of Space, Cambridge, UK: Cambridge University Press.
- de Holanda, F. (2009), 'Of Glass and Concrete: Internal versus external space relations in Oscar Niemeyer's architecture'. In: Koch, D., Marcus, L. and Steen, J. (eds.), *Proceedings of the Seventh International Space Syntax Symposium*, Stockholm, KTH, p. 043:1-15.
- Ingraham, C. (1998), Architecture and the Burdens of Linearity, New Haven: Yale University Press.
- John, E. (2012), 'Beauty, Interest, and Autonomy'. In The Journal of Aesthetics and Art Criticism, Vol. 70(2), p.193-202.
- Johnson, A. E. (2011), 'Crooked and Narrow Streets Photography and Urban Visual Identities in Early Twentieth-Century Boston'. In *Winterthur Portfolio*, Vol. 47(1), p.35-64.
- Kant, I. (1974), Critique of judgement (transl. by Bernard, J. H.), New York: Hafner Press
- Kaye, N. (2000), Site-Specific Art: Performance, place and documentation, New York: Routledge.
- Kellermüller, A. (1928), 'Grundrissen: Untersuchung von Architect Alex. Klein, Berlin' [Floor plans: An investigation by architect Alex. Klein, Berlin]. In *Wohnen*, Vol. 3(2), p.23-26.
- Klein, A. (1927), 'Versuch eines Graphischen Verfahrens zur Bewertung von Kleinwohnungsgrundrissen' [An attempt at a graphical procedure for evaluation of small scale apartment plans]. In *Wasmuths Monatshefte für Baukunst und Städtebau*, Vol. 11, p.296-298.
- Klein, A. (1934), Das Einfamilienhaus Südtyp: Studien und Entwürfe mit grundsätzlichen Betrachtungen von Alexander Klein, Stuttgart: Verlag Julius Hoffmann
- Krippendorff, K. (2006). The Semantic Turn: A new foundation for design. London: Taylor & Francis.
- Koch, D. (2010), 'Architecture Re-Configured'. In Journal of Space Syntax, Vol. 1(1), p.1-16.
- Koch, D. (2012), 'Architectural Disjunctions: Morphological identity and syntactic contrasts of visibility and permeability'. In: Greene, M., Reyes, J. and Castro, A. (eds.), *Proceedings of the Eighth International Space Syntax Symposium*, Santiago de Chile: PUC, p. 8143:1-18.
- Koch, D. (2013a), 'Choreographing Exposure: Theatrical configurations of architectural disjunction'. In: Kim, Y. O., Park, H. T. and Seo, K. W. (eds.), *Proceedings of the Ninth International Space Syntax Symposiu*m, Seoul: Sejong University Press, p.70:1-18.
- Koch, D. (2013b), 'The architectural interface inside out'. In: Kim, Y. O., Park, H. T. and Seo, K. W. (eds.), *Proceedings of the Ninth International Space Syntax Symposium*, Seoul: Sejong University Press, p.067.1-067.16.
- Kwinter, S. (2001), Architectures of Time: Toward a Theory of Event in Modernist Culture, Cambridge, MA: MIT Press.
- Laine, T. (2006), 'Lars von Trier, Dogville and the hodological space of cinema'. In *Studies in European Cinema*, Vol. 3(2), p.129-141.
- Macarthur, J. and Moulis, A. (2005), 'Movement and figurality: The circulation diagram and the history of the architectural plan'. In: *Celebration: Proceedings of the 22nd Annual Conference of the Society of Architectural Historians*, Australia and New Zeeland, p.231-235.
- Malm, M. and Wik, A. (2012) *Imagining the Audience: Viewing Positions in Curatorial and Artistic Practice*, Stockholm: Art and Theory.
- March, L. and Steadman, P. (1971), The geometry of environment: an introduction to spatial organization in design, Hertford: Riba Publications Limited.
- Mandoki, K. (2007), Everyday aesthetics: prosaics, the play of culture and social identities, Aldershot: Ashgate.
- Marcus, L. (2010). Spatial Capital. Journal of Space Syntax, 1 (1), 30-40.
- Markus, T. A. (1993), Buildings & Power: Freedom & control in the origin of modern building types, London: Routledge.
- Penn, A. (2005). The Complexity of the Elementary Interface: Shopping Space. In: van Nes, A. (ed.), *Proceedings to the* 5th International Space Syntax Symposium, Delft: Techne Press, p.25-42.



- Peponis, J. (1989), 'Space, culture and urban design in late modernism and after'. In: Ekistics, Vol. 56(334/335), p.93-108.
- Peponis, J. (1993), 'Evaluation and Formulation in Design the implications of morphological theories of function'. In *Nordic Journal of Architectural Research*, Vol. 6(2), p. 53-62.
- Peponis, J. (2005). 'Formulation'. In The Journal of Architecture, Vol. 10(2), p. 119-133.
- Peponis, J. and Bellal, T. (2010), 'Fallingwater: The Interplay between Space and Shape'. In Environment and Planning B: Planning and Design, Vol. 37(6), p.982-1001.
- Peponis, J. (2012). Building layouts as cognitive data: purview and purview interface. In *Cognitive Critique*, Vol. 6, 11-50.
- Peponis, J., Bafna, S., Dahabreh, S. M., Dogan, F. (2015), 'Configurational meaning and conceptual shifts in design'. In *Journal of Architecture*, Vol. 20, 215-243
- Pérez-Gomez, A. (2012) 'The Relevance of Beauty in Archtecture'. In: Emmons, P., Hendrix, J. and Lomholt, J. (eds.), *The Cultural Role of Architecture: Contemporary and historical perspectives*, London: Routledge, p.157-166.
- Psarra, S. (2009), Architecture and Narrative: The formation of space and cultural meaning, Milton Park: Routledge.
- Psarra, S. (2014). Beyond analytical knowledge: The need for a combined theory of generation and explanation. In A|ZITU, Vol. 11(2), p.47-68.
- Rendell, J. (2006), Art and Architecture: A place between, London: I. B. Tauris.
- Scott, F. (1998), "Primitive wisdom' and modern architecture'. In The Journal of Architecture, Vol. 3(3), p.241-261.
- Shelley, J. (2011), 'Hume and the Value of the Beautiful'. In British Journal of Aesthetics, Vol. 51(2), p. 213-222.
- Shusterman, R. (1992) Pragmatist aesthetics: living beauty, rethinking art, Oxford: Blackwell.
- Sinnerbrink, R. (2007), 'Grace and Violence: Questioning Politics and Desire in Lars von Trier's Dogville'. In Scan | journal of media arts culture, Vol. 4, 10 pages, online.
- Stavroulaki, G. and Peponis, J. (2003), 'The spatial construction of seeing at Castelvecchio'. In: Hanson, J. (ed.), *Proceedings, 4th International Space Syntax Symposium*, London: Space Syntax Laboratory, p.66.1-66.14.
- Tegethoff, W. (1985 [1981]), Mies van der Rohe: The Villas and Country Houses, New York: Museum of Modern Art.
- von Trier, L. (Director, Writer), & Windeløv, V. (2003). Dogville. Santa Monica: Lions Gate
- Tschumi, B. (1994), Event-cities: praxis, MIT Press, Cambridge (MA).
- Tschumi, B. (1996), Architecture and Disjunction, MIT Press, Cambridge (MA).
- Tschumi, B. (2000), Event-cities 2, MIT Press, Cambridge (MA).
- Tschumi, B. (2005), Event-cities 3, MIT Press, Cambridge (MA).
- Tzortzi, K. (2011), 'Space: Interconnecting Muesology and Architecture.' In Journal of Space Syntax, Vol. 2(1), p.26-53.
- Tzortzi, K. and Hillier, B. (2016), 'From exhibits to spatial culture: An exploration of performing arts collections in museums'. In *Journal of Space Syntax*, Vol. 7(1), p.71-86.
- Vidler, A. (1992), The Architectural Uncanny: Essays in the modern unhomely, Cambridge, MA: MIT Press.
- Wigley, M. (1995), White Walls, Designer Dresses: The Fashion of Modern Architecture, Cambridge MA: MIT Press.
- Wölfflin, H. (1950 [1932]), Principles of Art History: The Problem of the Development of Style in Later Art, Mineola, NY: Dover Publications.
- Zamani, P. and Peponis, J. (2005), Co-visibility and pedagogy: innovation and challenge at the High Museum of Art. In *Journal of Architecture*, Vol. 15(6), p.853-879
- Zou, H. (2012), 'The Idea of Labyrinth (*Migong*) in Chinese Building Tradition'. In *The Journal of Aesthetic Education*, Vol. 46(4), p.80-95.